SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

TroLase ADA Signage

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant uses

Plastics articles
Laser engraved article

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company: Trotec Produktions- und Vertriebs GmbH
Linzer Str. 156
4600 Wels / AUSTRIA
Phone +43 (0) 72 42 239-7777
Fax +43 (0) 72 42 239-7380
Homepage www.troteclaser.com
E-mail trotec@troteclaser.com

Address enquiries to
Technical information: trotec@troteclaser.com
Safety Data Sheet: sdb@chemiebuero.de

1.4 Emergency telephone number

Company: +43 (0) 72 42 239-7777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification.

2.2 Label elements

This product is an article and therefore it does not require labelling according to EC directives [REACH/CLP].

2.3 Other hazards

Human health dangers
Risk of mechanical irritation by dust particles (eyes, skin).

SECTION 3: Composition / Information on ingredients

Product-type:
The product is an article.

<table>
<thead>
<tr>
<th>Range</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.5</td>
<td>Methyl methacrylate</td>
</tr>
<tr>
<td>&lt; 0.1</td>
<td>Ethyl acrylate</td>
</tr>
</tbody>
</table>

CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
GHS/CLP: Flam. Liq. 2; H225 - STOT SE 3; H335 - Skin Irrit. 2; H315 - Skin Sens. 1; H317

GHS/CLP: Flam. Liq. 2; H225 - Acute Tox. 4; H302 H312 H332 - Eye Irrit. 2; H319 - STOT SE 3; H335 - Skin Irrit. 2; H315 - Skin Sens. 1: H317

Comment on component parts
The contained dangerous materials are not freely available with foreseeable use. Substances of Very High Concern - SVHC; substances are not contained or are below 0,1%. For full text of H-statements: see SECTION 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In the event of symptoms seek medical treatment.

Inhalation
not applicable
After inhalation of vapours of product which can set be free by thermal processing:
Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

Skin contact
In case of contact with skin wash off with warm water.
Consult a doctor if skin irritation persists.
In case of burning: After contact with molten product cool quickly with cold water or sterile salt solution and protect with gauze.

Eye contact
If eye irritation persists: Get medical advice/attention.

Ingestion
not applicable

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used
Full water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO2)
Nitrogen oxides (NOx).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13
SECTION 7: Handling and storage

7.1 Precautions for safe handling

During mechanical processing vacuuming at processing machines is necessary.
Avoid the formation and deposition of dust.
Dust deposits that cannot be avoided must be taken up regularly.
During thermal processing vacuuming at processing machines is necessary.
The normal safety precautions for handling of molten, heated products must be observed.
The product is combustible.
Wash hands before breaks and after work.
Do not eat, drink, smoke or take drugs at work.

7.2 Conditions for safe storage, including any incompatibilities

Do not store together with acids and alkalies.
Do not store together with oxidizing agents.
Keep in a well-ventilated place.
Keep in a cool place. Store in a dry place.
Protect from heat/overheating and from sun.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

<table>
<thead>
<tr>
<th>Range [%]</th>
<th>Substance</th>
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</thead>
<tbody>
<tr>
<td>&lt; 0,5</td>
<td>Methyl methacrylate</td>
</tr>
<tr>
<td></td>
<td>CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure: 50 ppm, 208 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Short-term exposure (15-minute): 100 ppm, 416 mg/m³</td>
</tr>
<tr>
<td>&lt; 0,1</td>
<td>Ethyl acrylate</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure: 5 ppm, 21 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Short-term exposure (15-minute): 10 ppm, 42 mg/m³</td>
</tr>
</tbody>
</table>

Ingredients with occupational exposure limits to be monitored (EU)

<table>
<thead>
<tr>
<th>Range [%]</th>
<th>Substance / EC LIMIT VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0,5</td>
<td>Methyl methacrylate</td>
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<tr>
<td></td>
<td>CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6</td>
</tr>
<tr>
<td></td>
<td>Eight hours: 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Short-term (15-minute): 100 ppm</td>
</tr>
<tr>
<td>&lt; 0,1</td>
<td>Ethyl acrylate</td>
</tr>
<tr>
<td></td>
<td>Eight hours: 5 ppm, 21 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Short-term (15-minute): 10 ppm, 42 mg/m³</td>
</tr>
</tbody>
</table>
8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
To pay attention to dust limit value (ACGHI-2011: 10 mg/m³ particle inhalable; 3 mg/m³ particle respirable).
Use suitable discharges or exhaust ventilation if heat treatment is intended.
Protection adapted to the manipulation of the fused product (danger of burning).

Eye protection
In the event of dust formation:
safety glasses

Hand protection
Suitable protective gloves.

Skin protection
Not required under normal conditions.

Other
Avoid contact with eyes and skin.
Do not inhale dust.
Do not inhale vapours.
Avoid contact of molten material with skin.

Respiratory protection
Respiratory protection in the case of dust formation.
Respiratory protection in the case of thermal processing.
Short term: filter apparatus, combination filter A-P2.

Thermal hazards
See SECTION 7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form
solid

Color
various

Odor
characteristic

Odour threshold
No information available.

pH-value
not applicable

pH-value [1%]
not applicable

Boiling point [°C]
No information available.

Flash point [°C]
not applicable

Flammability (solid, gas) [°C]
No information available.

Lower explosion limit
not applicable

Upper explosion limit
not applicable

Oxidizing properties
no

Vapour pressure/gas pressure [kPa]
No information available.

Density [g/ml]
1.15 - 1.19 (20 °C / 68.0 °F)

Bulk density [kg/m³]
not applicable

Solubility in water
insoluble

Partition coefficient [n-octanol/water]
No information available.

Viscosity
not applicable

Relative vapour density determined in air
No information available.

Evaporation speed
No information available.

Melting point [°C]
No information available.

Autoignition temperature [°C]
393

Decomposition temperature [°C]
No information available.

9.2 Other information
none
SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with alkalies (lyes).
Reactions with acids.
Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.
In the case of heating following (decomposition) products may occur:
Acrylic monomers.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
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</tbody>
</table>

LD₅₀, oral, Rat: 7872 mg/kg (RTECS).
LD₅₀, dermal, Rabbit: > 5000 mg/kg (RTECS).
LC₅₀, inhalative, Rat: 7093 ppm/4h (Lit.).
LC₅₀, inhalative, Rat: 78000 mg/m³ (4 h) (RTECS).

Serious eye damage/irritation Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure Based on the available information, the classification criteria are not fulfilled.
Mutagenicity Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard Based on the available information, the classification criteria are not fulfilled.
General remarks Risk of mechanical irritation by dust particles. May cause irritation of eye (vapours/fumes). May cause respiratory tract irritation (vapours/fumes). Toxicological data of complete product are not available.
SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Range [%]</th>
<th>Substance</th>
<th>LC50, (96h), fish: 191 mg/l (IUCLID).</th>
<th>EC50, (48h), Daphnia magna: 69 mg/l (IUCLID).</th>
<th>IC50, Pseudokirchneriella subcapitata: 170 mg/l (4 d) (OECD 201).</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Methyl methacrylate, CAS: 80-62-6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

- Behaviour in environment compartments: No information available.
- Behaviour in sewage plant: Can be separated out mechanically in purification plants.
- Biological degradability: The product is not biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

The product is insoluble in water.
Ecotoxicological data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 070213

Contaminated packaging
Contaminated packing should be disposed of as product waste.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150102 150101

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name
14.2 UN proper shipping name

Transport by land according to ADR/RID

NO DANGEROUS GOODS

Inland navigation (ADN)

NO DANGEROUS GOODS

Marine transport in accordance with IMDG

NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA

NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EEC-REGULATIONS


TRANSPORT-REGULATIONS


- Observe employment restrictions for people

none

- VOC (1999/13/CE)

0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H319 Causes serious eye irritation.

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H317 May cause an allergic skin reaction.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H225 Highly flammable liquid and vapour.
16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Modified position none

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